

Abstract:

The invention relates to a method for detection of an analyte in a test sample by a specific binding reaction among the analyte, a specific binding partner
5 for the analyte, and an (immuno)reactant provided with a label, characterized in that the label is a lanthanide ion-ligand complex wherein the lanthanide ion is neodymium(III) ion (Nd^{3+}), ytterbium(III) ion (Yb^{3+}), or erbium(III) ion (Er^{3+}) and the ligand comprises or is in contact with a sensitizing moiety which absorbs in the 400-1000 nm region, and preferably in the 400-800 nm
10 region. Further, a diagnostic kit is disclosed as well as a method of detecting an analyte in a matrix of biomedical interest through an oligonucleotide, an antigen, or an antibody attached to a material, preferably core-shell latex or with specific binding sites wherein the antigen or antibody is labeled with the lanthanide ion-ligand complex and brought into contact with the analyte, after
15 which the analyte with the lanthanide-ion complex is immobilized on the material, and, optionally, residual lanthanide-ion complex is removed, after which the sample obtained is irradiated with light in the 400-1000 nm region, and the emitted light from said sample is detected if said analyte is present in the matrix of biomedical interest.